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ABSTRACT

The United States Department of Education and the American Vocational Association have undertaken a study to define the role of vocational training in job development. The literature and conversations with people involved in job development programs have shown that regional economic growth, including increases in employment, depends on five key elements--money, materials, markets, management, and manpower. Federal legislative actions concerning job creation emphasize job expansion in the private sector. Such measures as job training, tax incentives to employers who hire cooperative education students, and small business management courses have also been suggested. Three kinds of support various regions have used to aid economic development include attracting new industry, revitalizing existing industry, and expanding the economic base. These customized industrial services programs, conducted by a separate agency or a multiple agency design, are organized around the outreach efforts of vocational departments and are linked with business and community. The study just initiated intends to judge the success of state and local job creation and development programs. Suggested strategies for vocational educators to increase the demand for workers include the following: providing cooperative work experience, entering into partnerships with urban or rural renewal agencies to prepare people for jobs in small business or management, and collaborating in customized industrial programs. (YLB)

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VOCATIONAL EDUCATION IN ECONOMIC DEVELOPMENT

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ARTICULATING WITH INDUSTRY: THE ROLE OF
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When Dale Campbell invited me to describe the recently launched USDE funded study of the role of vocational education in economic development, I warned him that we were just getting under way and that it would be premature to state with any certainty just what contribution vocational education is making to local and regional job development. How true that observation proved to be! Anyone bold enough or naive enough to think that he or she can easily sort out the contribution that vocational education makes to a state's or region's economic viability has got to be either naive or committed — to vocational education, I mean. Let me hasten to add that we have already identified some pretty solid evidence that vocational education is playing a significant role and that evidence will be collated and evaluated as we move further into the study; our problem at the moment is to identify models and specify strategies which fully utilize public vocational training facilities and resources in ways which serve both the interest of the community and the individual.

Just a brief word about the nature of the study we are now engaged in. Last Fall the then U.S. Department of Education contracted with the American Vocational Association to do four things:

1. Identify and describe existing job development/creation programs which successfully link vocational education to industry needs;
2. develop a set of guidelines which will help community developers and business/industry training coordinators in adopting or expanding job development efforts in their communities;
3. disseminate these guidelines to potential users through a series of regional conferences, publications, and presentations;
4. work with adopting sites in assisting them to implement new or expanded programs.

I really should not be the one describing this effort; my colleague and mentor, Dr. Krishan Paul, is the project director. My role as a subcontractor is to develop a state-of-the-practice report and aid in designing and collecting data on the various sites which we will identify as potential models. Krishan will have the last word, of course. His place on this panel of reactors assures him of that advantage. He can critique my comments on the study as well as vent any frustrations he may have with my performance as a subcontractor. He and Ronnie Posner at AVA deserve credit for recruiting a top notch team of investigators and overseeing their efforts to design and launch an undertaking of this complexity.

Krishan and I have been spending the last three weeks talking to a cross section of key opinion leaders and spokespersons representing both federal and state agencies and associations actively involved in job development programs. While there was not universal support for the argument that vocational training does play an essential role in job development, there was widespread agreement that a well planned and executed program often spelled the difference between success and failure. As we talk with these people and read the rather extensive literature on regional economic development, we became more and more aware of the complexity of our undertaking and of the difficulty of ferreting out those actions or planning steps which serve to insure success.

Before I get too far into describing some of the results of our initial investigation, I'd like to clarify what is meant by regional "economic growth" and "economic development".¹ "Growth" refers to the increases in the total value of goods and services produced and the aggregate income generated within a region. Increases in employment and in population are frequently associated with regional economic growth. "Development", on the other hand, is concerned with improvements in the quality of life and standard

of living enjoyed by the residents of a region. Its' focus is the welfare of the individual. Most of us would agree that increases in aggregate income is likely to lead to improvements in individual standards of living, assuming that a region's growth in population does not outstrip its economic growth.

Per capita income improvement is not the only measure of an improving regional economy, however.² Policy makers and economic developers have long recognized that the quality of life in a region reflects other elements. The stability of income and unemployment, the amenities of the environment in which we live, the quality of schools and other public services, all contribute to that concept we call "economic development." Many will testify to the limitations of an economic "growth" policy which does not give full consideration to "development." Balanced growth advocates argue persuasively that qualitative considerations are as important as quantitative indicators. Having a job with a future and fringe benefits is more desirable than just having a job.

But let me get back to my main strain of thought. My assignment is to talk about vocational education's role in economic development. I've tried to define what is meant by economic development as more than an individual's annual income - now I'd like to spend a little time dissecting the concept of economic growth (I was tempted to say "corpus" rather than "concept" but in these politically charged times its hard to know whether our national economy is alive or dead or just snoozing). Having developed a framework for describing the initial ingredient in any regional economic development policy, I will then be ready to say some things about what you probably all really came to hear - can vocational education contribute to improvements in the quality of our individual and collective lives.

An economic growth program is very much like a vegetable garden. You need plenty of light, water, and other nutrients in the proper amount for it to flourish. If one of those key ingredients is missing, you will not get the results that you hope for, even if the other elements are present in large quantities. If it happens to be like my vegetable garden, you also get a few moles running around underneath living off my investment of effort. In a similar way, economic growth depends on five key elements (the five M's) which must be present for growth to occur. These are Money, Materials, Markets, Management and Manpower.³ Let me describe in a brief way just what role each of these five ingredients play and try to weight their relative importance from the vantage point of those of you who are concerned with overseeing or implementing a community based economic development program. Then I'll concentrate on the manpower development dimension of economic development.

Money: I'm tempted to draw on my metaphor of the vegetable garden and say that "money is the root of all evil". But I won't! Here, of course, "money" refers to the capital needed to transform and transport natural resources into a marketable product. Capital is supplied by individual investors or private firms, or it can be provided through public sources. Economic theory argues that the private or corporate investor is primarily interested in maximizing profits by investing in projects that offer the greatest financial return. It is worth mentioning, however, that there are many examples of investments in new plants and equipment where the investor is influenced by nonfinancial considerations such as the quality of schools in an area or the ambiance of the physical environment.

Publicly supplied capital can take the form of highways, rail lines, electric utilities, and schools. Needless to say, an inadequate supply of social overhead capital in a region may render that location unattractive to private firms. The federal government has recognized that fact for years. I have only to mention the Department of Commerce's Economic Development Administration, the Department of Agriculture's Farmers Home Administration, HUD's involvement in economic development through block grants to cities, the Urban Mass Transit Administration's effort to establish public transportation systems or upgrade existing ones, the Community Services Administration's support for community-controlled non-profit entities aimed at alleviating the problems of poverty, unemployment, and physical deterioration, and, last but not least, the Small Business Administration's loan guarantee program for the support of minority operated businesses. One of the more interesting debates on economic development involves the question of what part the private or public sector should play in capital formation. You will be happy to learn that I'm going to save that debate for another audience, however.

Materials: The natural resources located within a particular geographical area -- its minerals, climate, plant and animal life, type of soil -- represent those natural ingredients which can be combined with labor to create jobs.

One of the more interesting examples of making full use of local resources comes from Lewiston, Idaho where an enterprising resident accidentally dropped glue on elk dung and discovered that the hardened product could be made into jewelry. The governor of Idaho took some examples along with him on a trip he had to make to Japan. They were quickly snapped up. Now the town is a major exporter of elk dung jewelry. (Who said Americans were not ingenious - we import thousands of automobiles from Japan and, to maintain the balance of trade, we ship tons of elk dung made into jewelry to Japan.)

One caveat regarding materials. People's tastes and life styles change with the times. What was once viewed as a valued natural resource may no longer be valued in an economic sense. Sulphur spring spas give way to ski resorts and scuba diving. My point is that planners and economic developers must be sensitive to changing markets and the demand for materials that supply those markets.

Markets: These are the places where a company sells its products or provides its services. Adapting to changing markets and being able to exploit emerging opportunities demands a responsive and flexible management and work force. Phasing in new products with existing ones and integrating new firms with already established ones in a community can result in sound local economies that give one location an edge over another. Regions and communities do not exist in a vacuum; they depend greatly on the health of the national economy as well as upon that of contiguous areas.

Management: These are the people who oversee the combining of materials, money, and manpower resources in order to successfully produce and market a product or service. They are the catalysts which bring about economic growth and development. Effective managers require vision, problem solving skills, motivational ability, and the ability to coordinate. But most of all, they need to be skilled communicators. Effective links between the public and the private sector depend on top management's ability to communicate needs, negotiate differences, and build support for new programs. Directors of local economic development efforts are discovering that one of their chief challenges is identifying and harnessing managerial talent in both the private and the public sectors.

Manpower: I have saved this fifth ingredient of economic growth for last because it is the central concern of most of you here in this audience. Converting natural resources into finished goods or producing goods and services for consumption in the market place requires both human and capital resources. Changing technology and shifting markets can yield dramatic declines in the demand for certain types of skills. A shift from labor intensive to capital intensive production methods in the resource-based industries (e.g., forestry, mining, agriculture) has, for example, left large pools of surplus labor in rural areas competing for a limited number of jobs, thus keeping wage rates low.⁴ (This is one of the reasons, incidently, that labor intensive industries have migrated to rural areas particularly in the South).

The central theme of this paper — indeed the basic focus of the study in which Krishan Paul and I are engaged — is that vocational educators can no longer afford to sit passively by waiting for industry to tell us what its skill needs are. It must and should enter actively into the job creation role. To do so successfully will require close working relationships with other agencies and businesses, often times with organizations with whom we have not worked in the past. How to do so is the focus of the remainder of my remarks today.

A National Priority

A significant number of recent legislative actions — our social barometer of national needs and priorities — is concerned with creating good jobs at fair rates of compensation. Economic development has emerged as a unifying theme across such legislative initiatives as the "Full Employment and Balanced

Growth Act of 1978", the "CETA Amendments of 1978", and the "Education Amendments of 1976." Two "rights" dominate these legislative acts: the right to employment and the right to training for employment.

The point emphasized by these and other legislative acts is that employment is central to this country's economic development strategy and American's, regardless of where they live, have the right to work and to qualify for work. Stimulating the expansion of jobs, primarily in the private sector, is accomplished through a variety of fiscal and economic strategies which operate at the macro and micro level.

Not all observers of the economic development scene concur that the national interest is best served through support for job expansion in the private sector.⁵ However, both the radical and mainstream economists tend to agree that job training, done in the right way, can and does have a salutary impact on the individual and the economy. Thus they also agree that tax incentives should be offered to employers who hire cooperative education students on a part-time basis.⁶ Small business management courses should be provided to owners and their families. (Incidentally, in a monumental study of over five million businesses operating in 1969, David Birch of MIT found that small firms are the country's biggest job generators — 40% of all new jobs and 60% of expanded jobs are in smaller firms run by independent owner operators.)⁷ And that training young adults to become entrepreneurs is desirable.

Just what do we mean by job creation and development? A few, brief definitions should suffice:

Job Creation - expanded work opportunities resulting from the formation of new businesses or the expansion of existing business.

Job Development - Modification of existing work opportunities due to changing production methods, product line, or procedures.

Job Preservation - saving existing jobs by keeping employers from extinction, closing down or moving away.

Most regions of the country have well conceived plans for creating, developing, and preserving jobs. By establishing a positive "business climate", states/regions are capable of providing incentives for new and expanding industries as well as small businesses and entrepreneurial enterprises. A number of factors contribute to the business climate: attitudes of government officials, avoidance of bureaucratic tie-ups (clearances, sign-offs, etc.), environmental and zoning regulations, land availability, energy and transportation costs.

But perhaps one of the most significant factors in promoting economic development in a given locale is the availability of skilled workers. In a survey done by the Joint Economic Committee, among the six major factors influencing industry's and business' decisions to locate or expand in a certain location were: (1) the quality of the school system, and (2) the availability of trained manpower.⁸

While there is need to determine the true relationship between vocational education and economic development, examples of three types of support can be found in various parts of the country. A few brief descriptions* follow:

I. Attracting New Industry

* South Carolina's "Design for the '80's" Program is an excellent customized training model which follows on the heels of almost two decades of program support for new industry. The

*I am indebted to Patricia Goodman of AVA's Publications and Communication Department for alerting me to many of these examples.

state's Technical Education System (TEC) has responsibility for putting together the job training features: recruiting, testing, timing, providing appropriate facilities and equipment, communicating with company representatives, and insuring instructional flexibility. Success is shown in the fact that before TEC (1951-61) only \$1.4 billion was invested in new plants in the state. Since 1961 TEC has helped to bring more than \$11 billion in new capital into South Carolina.⁹

* Georgia's "Quick-Start" program is also centered around the state's vocational school system. It ensures similar coordination between industrial training personnel in the schools and local business leaders. The objective is to keep the curriculum in constant relation to present and future work opportunities. This program is operated by Georgia's Department of Community Development in cooperation with the Industrial Services Unit of the State Department of Education. One of the companies attracted by Georgia's business development effort was a high technology firm, TRW, Inc. It now has plants located in three separate communities in the state, the largest of which has an annual payroll of \$4 million. State staff estimate that the pay back of expended funds through taxes on new payrolls takes less than two years.¹⁰

II. Revitalizing Existing Industry

* Oklahoma's "special training programs," begun in 1968, have helped to bring a 40% increase in employment during the past decade. By adding regional coordinators to the vocational education staff, the training and manpower needs of existing companies are systematically and periodically surveyed. The needs of existing companies as well as those of new companies just entering the state are responded to quickly and with a minimum of "red tape."¹¹

* Twenty years ago, coal mining was a major industry in Western Maryland, but the low price of oil at that time and the threat of environmental blight forced the mines to close. The advent of OPEC, together with improved mining technology,

has given Western Maryland's coal industry a new lease on life.

The Mettiki Coal Company is digging a deep mine on Backbone Mountain in Western Maryland. To meet the needs of the new technology of deep mining, Mettiki, with the help of Maryland's Industrial Training Program, looked to Garrett Community College for assistance in training its workers. As a result of this new effort, Mettiki expects to hire 400-500 people by mid-1980. State officials estimate that each mining job will, in turn, create two additional jobs.¹²

III. Expanding the Economic Base

* Staples, Minnesota was threatened by the specter of high unemployment when its major source of jobs, the railroad, closed down in the early Sixties. Its other primary industry--agriculture--was also suffering because of a serious water shortage.

Not willing to sit by passively, the community, under the leadership of its dynamic superintendent of schools, set about to sponsor a special training program for irrigation technicians. This, in turn, led to a need for well drillers. An improved water supply brought about an increase in agricultural production which in turn expanded the demand for fertilizers and other chemicals. Because of the greater productivity, farmers were able to buy more machinery and employ more people. Larger storage facilities and a need for improved means of transportation led to even more jobs. The local vocational education program played an important part in keeping the Staples' newly flourishing economy alive and well.¹³

* The Minnesota Model for Small Business Management Education is designed to develop, increase and improve entrepreneur skills in performing the work of a business person. The focus is on the self-employed worker and the improvement of his or her productivity.¹⁴

These examples of customized industrial services programs are organized around the outreach efforts of vocational departments and are linked with local business leaders, Chambers of Commerce, community development agencies, and CETA prime sponsors. Jc/d programs are generally:

1. Short-term in nature.
2. Tightly scheduled.
3. Small in numbers of trainees.
4. Customized to a company's specific requirements.
5. Provided at little or no cost to the company.

Most states operate such programs under one of two types of organizational structures. Either (1) a separate agency is formed where all industrial development activities are controlled under one roof, frequently directed by a person who reports directly to the governor of the state; or (2) a multiple agency design is employed where services of a number of state and local organizations are coordinated at the state or regional level.

Among the criteria we will be considering as bench marks for judging the success of state and/or local job creation and development (jc/d) programs are the following:

1. Collaboration: Evidence of active interaction and cooperation among representatives of local and state agencies involved in (jc/d), e.g., economic development office, employment security office, CETA prime sponsors, and vocational education representatives.
2. Flexibility: How timely and responsive are jc/d programs to the needs of industry.

3. Curriculum relevance: Is training content up-to-date and does it utilize the latest training technology?
4. Ease of decision-making: Are coordinators responsible for designing and for implementing jc/d programs delegated broad decision-making powers for committing state or local resources to a program.
5. Creative leadership: Vocational educators who plan and commit their institutions to a jc/d effort must have the foresight, know-how, and administration skills needed to respond to client demands.
6. Commitment of key state officials: Political and top administrative leaders must be supportive and knowledgeable.
7. Facilities and equipment: Are the available materials and equipment up-to-date? Do the supplies, tools, and machines utilized in the program match those to be used on-the-job?
8. Sharing of rewards: Is the recognition and rewards derived from successful programs shared among all of the agencies involved?
9. Conflict resolution mechanisms: Are there procedures for resolving the inevitable conflicts among or between agencies and business organizations participating in the program.
10. Industry specific: Can the program be customized tailored to fit the needs of a specific company.
11. Cutting the red tape: Have the preconditions for participation in the jc/d program been held to a minimum. The fewer the preconditions, the greater the likelihood of a successful business, state and local government hook-up.

Alternative Job Creation and Development Models

Assuming at this point that you accept my argument that the time has arrived for vocational education to do more than simply match people with jobs, the question before us is, how can you as vocational educators move

more aggressively into this arena of job creation and development?

There probably is no single model which will adequately describe or guide practitioners in their attempt to increase the demand for workers. However, a variety of efforts have been in operation now for a number of years. One familiar model is the provision of cooperative work experience. It requires locating and coordinating work experience with classroom instruction. Supervisors are assigned by the school system to oversee student work experience and to insure relevance. These are well established practices which may warrant expansion but no major change in the way these programs are operated. Some evaluation is needed to determine if, in fact, this combination of work and study is more effective than either training experience alone. Evidence to date suggests that most cooperative ed students do find employment with the company for whom they worked part-time.

Another model emphasizes a partnership with urban or rural renewal agencies in preparing people for jobs in small business or in farm management. It is a shift away from the traditional world of vocational education to one where educators are required to assist potential job makers in learning to cope effectively with a changing business environment. Most of the training that takes place under this rubric happen in the community, not in the schools. These nontraditional programs will need resources and state leadership that is willing to take some risk.

The third and last model is the customized industrial training model described earlier and in greater detail elsewhere.¹⁵

Summary

I would like to close my remarks on an optimistic note. A couple of recent studies underscore the economic development potential of vocational education sponsored jc/d programs. In a recent indepth examination of nine

CETA programs, Lecht and Matland¹⁶ found that prime sponsors having strong linkages to local businesses and vocational education programs were more likely to place their trainees in better jobs in private firms. A second study assessed the economic impact of vocational education programs in Appalachia. It found that 81% of the employers in the communities sampled were of the opinion that the vocational schools had been an asset to the local economy. Approximately half of the vocational facilities administrators surveyed reported that they helped their communities attract new businesses and another half felt that "they had assisted businesses in their communities expand their operations."¹⁷ The Appalachian Regional Commissions investment in vocational education, the study concluded, had paid off in expanded employment opportunities and better trained workers.

An expanded program of job creation and development will require guidelines, models, and training workshops for those of you interested in entering into this field. AVA's Vocational Education for Economic Development Project will help by offering such services. However, it will be up to you practitioners of the art to take advantage of these opportunities. The choice, as they use to say in "Mission Impossible," is yours!

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